

Application No. 10/630,555

Reply to Final Office Action of December 28, 2006

Docket No.: NY-LUD 5298-US5-DIV

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REMARKS

Entry of the amendment is requested.

Previously Applicants amended claim 32 to refer to the protein encoded by SEQ ID NO: 1. In a telephone message left by Examiner Hissong, it was indicated that this claim was allowable; however, the Examiner indicated that a double patenting rejection remained appropriate, and the previously filed terminal disclaimer would not be withdrawn.

Applicants have thus added language to claim 34 which is found in original claim

20.

To elaborate, original claim 20 read as follows:

"An antibody which binds specifically to a protein as defined in any of claims 1-19 and not to at least one other such protein."

Claims 1-19 refer collectively to the amino acid sequences of SEQ ID NOS: 2, 4, 6, 8, 10, 12, 14, 16, and 18. Page 5, line 24 - page 6, line 7, indicate that these amino acid sequences correspond to ALK-1, ALK-2, ALK-3, ALK-4, ALK-5, and ALK-6. Hence, the specification as filed provides support for this amendment. Figure 3 compares the amino acid sequences of ALK-1 through ALK-6, showing differences therebetween. Figure 6 describes percentage homology of the kinase domains of the various ALK molecules to each other, and shows that the highest degree of homology within the kinase domains is 79%, between ALK-1 and ALK-2. A difference in homology of 21% over a domain of the size of the kinase domains is sufficient to develop unique epitopes, i.e., those which would be useful in preparing antibodies to specific proteins without binding

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to other, ALK proteins. Page 23, line 32 - page 24, line 20k, describes the production of antibodies against specific regions of each of six ALK proteins, viz:

ALK-1:	amino acids	145-166
ALK-2:	amino acids	151-172
ALK-3:	amino acids	181-202
ALK-4:	amino acids	153-171
ALK-5:	amino acids	158-179
ALK-6:	amino acids	151-168

There is almost no homology amongst these sequences, which would suggest to the skilled artisan that ALK-specific antibodies, i.e., antibodies which bind to one ALK, but not others, are within the skill of the artisan. Hence, it is believed that there is full support for the amended claims.

In a restriction requirement dated April 9, 2006, the Examiner required that, if claim 20 were elected "one specific protein or nucleic acid" would further have to be elected. The Examiner emphasized that this was NOT an election of species, rather, each sequence was considered to be a separate, patentable invention.

If a generic claim is not permitted, and if specific sequences are deemed to constitute separately patentable inventions, then there is no basis for the continuation of the double patenting rejection if the claim is drawn to what has been deemed a separate invention. As such, applicants renew their Petition to the have the Terminal Disclaimer withdrawn.

Entry of this amendment, allowance of this application, and withdrawal of the terminal disclaimer are all solicited herein.

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The Commissioner is hereby authorized to deduct the extension fee from Deposit Account No. 50-0624 under Order No. NY-LUD 5298-US5-DIV (10309270) from which the undersigned is authorized to draw.

Dated: June 3, 2007

Respectfully submitted,

By 

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